

**CLAIMS**

1. A method for generating unique internet protocol address from the geographical location data, in which the internet protocol address has a global prefix portion (10) and a local suffix portion (11), characterized in that the geographical location information is coded in the suffix part (11) of the address.

2. A method according to claim 1, characterized in that the geographical location is a three dimensional coordinate.

3. A Method according to claim 1, characterized in that the geographical location information is a two dimensional coordinate.

4. A method according to claims 1 - 3, characterized in that the geographical location information includes additional information.

5. A method according to claims 1 - 4, characterized in that the additional information is node specific information such as terminal number, node name, node layer information, street address, serial number, color or weight.

6. A method according to claims 1 - 5, characterized in that the address based on the geographic location information assigned to a mobile device is updated when the mobile device moves and said new address is informed to the register that controls the location of said mobile device.

7. A method according to claims 1 - 6, characterized in that the address assigned to a mobile device consist of the device number and geographical location information of the router to which the mobile device is connected to.

8. A method according to claims 1 - 7, characterized in that the geographical location information is automatically detected.

9. A method according to claims 1 - 8, characterized in that the geographical information is manually entered.

10. A method according to claims 1 - 9,  
5 characterized in that the addressing of subnets of the network is based on the geographic location of the routers.

11. A method according to claims 1 - 10,  
10 characterized in that the addresses are used to improve the network performance by using the geographic location information in directing the radio signal to destination when radios are used in physical layer.

12. A router (RT) for routing internet protocol packets in which the unique address is based on geographical location information and has a global prefix portion and a local suffix portion, characterized in that the system harnesses the geographic location information coded to the suffix portion of the address in routing packets to the destination nodes (NODE) located in the subnetwork (Subnet).  
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13. A router (RT) according to claim 12, characterized in that the geographic location information is a three dimensional coordinate.

25 14. A router (RT) according to claims 12, characterized in that the geographic location information is a two dimensional coordinate.

15. A router (RT) according to claims 12 - 14, characterized in that the geographical location information includes additional information.  
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16. A router (RT) according to claims 12 - 15, characterized in that the additional information is node specific information such as terminal number, node name, street address, serial number, color or weight.  
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17. A router (RT) according to claims 12 - 16, characterized in that the router (RT) is

arranged to update the address assigned to a mobile device (MOB) when the mobile device moves.

18. A router (RT) according to claims 12 - 17, characterized in that the router (RT) is arranged to assign to a mobile device (MOB) an address which consists of a device number and a geographical location information of the router to which the mobile device is connected to.

19. A router (RT) according to claims 12 - 18, characterized in that the router (RT) is arranged to query the geographic location information from the client attached to the network.

20. A router (RT) according to claims 12 - 18, characterized in that the router (RT) is arranged to assign the geographic location information and terminal device number to client attached to the network.

21. A router (RT) according to claims 12 - 20, characterized in that the router (RT) is arranged to utilize the geographic location information in directing the radio signal to destination when radios are used in physical layer.

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